LYME ENERGY COMMITTEE MINUTES March 21, 2011

PRESENT: Matt Brown, Mike Morton, Charles Regan, Gary Phetteplace, John Gartner, Carola Lea, Sue MacKenzie, Dan O'Hara, Becky Lovejoy

Meeting called to order by Becky at 7:30

Minutes of the Feb. meeting were approved as written.

1. Topic: Terms of membership

Discussion-Terms John Gartner Member March 2011- thinking about stepping down. Rebecca Lovejoy, Co-chair March 2011- 3 year extension Michael Morton Member March 2011- Stepping down. Sue MacKenzie Member March 2011- one year extension Carola Lea Co-chair March 2012 Gary Petteplace Member March 2012 Matt Brown Member March 2013 Dan O'Hara Member March 2013 Charles Ragan Selectboard Representative

Action- Need to recruit more members from the community.

Who- All current members.

When- now.

2. Topic- Master Plan, Energy Chapter

Discussion- Gary- Et al much discussion of changes

Action- Recommend changes i.e.: wood usage for wood is under reported.

Who- Becky doing the rewrite and submitting to David Robbins, Lyme Zoning Administrator.

When- Attached

3. Topic- ETAP

Discussion- Last meeting with Mike

Action-Foreword info from Mike Mc Crory to Becky and Carola.

Who- Sue

When-

4. Topic Energy Roundtable May 26, 2011

Discussion- Becky going. anyone else? Becky will drive.

5. Topic- Idling at the Recycling Center.

Discussion- Need to put up a sign NO IDLING. Need to restart the whole campaign. Needs to be coordinated with Newsletter and other. Language on signs.

Action- will be an agenda item for the next meeting.

6. Topic- Establish a calendar for the Energy Committee

Discussion- Budget due October Terms Annually Annual report Jan 7th. Business expo

Meeting adjourned at 8:40

Next Meeting Monday, April 18, 2011 7:30-8:30 Town Office Building.

Respectfully submitted,

Susan J. MacKenzie

Secretary

Chapter 10 Energy

Statement of Purpose

As the town of Lyme looks towards the future, it needs to address the issues of energy efficiency/sustainability and reducing our impact on the environment.

The ability to use energy efficiently is important. In the same way that maintaining roads adds to our collective competitiveness and quality of life, encouraging investment in using energy efficiently can make life in the town of Lyme more productive and successful.

New Hampshire's renewable energy resources are in the form of biomass, geothermal, hydro, wind, wave, tidal, and solar energy

. Increased use of these sources of energy could increase the stability of our state's economy by reducing our reliance on fossil fuels.

The development of renewable energy sources comes with a hidden savings. Dollars invested in renewables can remain in New Hampshire and promote local economic activity and sustainability.

In addition to greater reliance on regional renewable energy resources, the town of Lyme should focus on energy *efficiency*. Energy investments aimed at increasing efficiency offer the quickest payback, and should always be the first priority in assessing energy related expenditures.

Descriptions:

The below chart shows the fuel source for New Hampshire's energy consumption for 1990 through 2006

in trillion British thermal units (TBtu).

NH Energy Consumption by Fuel Source

Source: NH Office of Energy and Planning "Energy Facts"

- Petroleum products dominate the State's energy supply. Decreases (2001 and 2004) were probably due to economic slowdowns: There was a recession in 2001; and the decrease after 2004 may have been an early indicator of another slowdown. The post-2001 rebound suggests the decrease in 2001 was not due to increased energy efficiency or conservation.
- "Biomass" includes: wood; the organic portion of municipal solid waste (MSW); landfill gas (LFG); ethanol in our gasoline; and the "bio" component of both on-road biodiesel and bioheat (a heating oil blend similar to on-road biodiesel).
- "Other Renewable" includes: solar electric, solar thermal, wind power, and geothermal. Although not fully quantifiable at this time, available data suggest a combined contribution of less than 0.5 trillion British thermal units.

The below chart shows the end-user energy consumption for New Hampshire for 1990 through 2006

NH End-User Energy Consumption

Source: NH Office of Energy and Planning "Energy Facts"

- Commercial Sector (which includes government) energy consumption surpassed definitively the Industrial Sector's after 2000.
- However, all sectors' energy consumption declined after 2004 2005.

Data for Lyme, the Lebanon area and Grafton County are not available.

Transportation:

Statewide the transportation sector was responsible for 33.2% of the state's energy consumption in 2006 and is met almost exclusively by petroleum products.

Census data show that Lyme households had more motor vehicles available to them than did households in the Lebanon area, Grafton County or the state as a whole.

Vehicles Available to a Household					
	Lyme	Lebanon _{Area}	Grafton County	New Hampshire	
None	2.1 %	5.7 %	6.5 %	5.8 %	
1	29.5 %	33.6 %	34.8 %	31.1 %	
2	44.8 %	43.4 %	42.2 %	44.5 %	
3 or more	23.7 %	17.3%	16.5 %	18.7 %	
Source: 2000 US Census					

Census data also show that, even though more Lyme residents drove to work alone than in the Lebanon area or Grafton County, a higher percentage carpooled than in the area, county or state as a whole.

Method of Commuting to Work					
	Lyme	Lebanon _{Area}	Grafton County	New Hampshire	
Car, truck or van (drove alone)	76.5 %	73.7 %	72.8 %	81.8 %	
Car, truck or van (carpooled)	13.6 %	12.0 %	12.2 %	9.8 %	
Walked	1.0 %	6.5 %	7.7 %	2.9 %	
Other Means	0.2 %	1.7 %	2.0 %	1.5 %	
Worked at home	8.6 %	6.1 %	5.3 %	4.0 %	
Source: 2000 US C	Census		ł		

The above tables show Lyme's residents have greater dependence on motor vehicles for transportation and are more willing to carpool to work than their neighbors in the Lebanon area, Grafton County or state as a whole. This reflects the rural nature of our town as well as the lack of public transportation.

Residential:

Statewide the residential sector was responsible for 29.3% of the state's energy consumption in 2006. As shown in the chart on the next page, the majority of this energy consumption was in the form of electricity.

Residential Sector Total Energy Use in 2006

Source: NH Office of Energy and Planning "Energy Facts"

Home Heating Fuel					
	Lyme	Lebanon	Grafton	New	
		Area	County	Hampshire	
Gas (utility or propane)	20.0 %	21.6 %	16.0 %	29.1 %	
Electricity	1.9 %	7.7 %	8.3 %	7.6 %	
Fuel oil or kerosene	64.7 %	60.9 %	65.7 %	58.1 %	
Coal or coke	0.0 %	0.1 %	0.1 %	0.2 %	

Wood	13.1 %	9.2 %	9.3 %	4.3 %
Solar	0.3 %	0.1 %	0.0 %	0.0 %
Other fuel	0.0 %	0.5 %	0.4 %	0.5 %
No fuel used	0.0 %	0.1 %	0.1 %	0.2 %
Source: 2000 US Cens	us			

The Lyme Energy Committee believes that wood consumption in the town of Lyme is under-reported and may actually be higher.

Commercial and Industrial:

Statewide the commercial sector was responsible for 22.4% and industrial sector was responsible for 15.0% of the state's energy consumption in 2006. Within Lyme, there are no significant industrial energy consumers, however local government, the Dartmouth Skiway, Crossroads Academy and the 25 small businesses and institutions form the commercial sector. Data are not available on Lyme's commercial energy use or how it compares to that of the Lebanon area, Grafton County or state as a whole.

Renewable Energy:

In 2006 only 8.8% of the state's energy came from renewable sources. The table below shows New Hampshire's renewable energy consumption in trillion British thermal units by sectors.

Renewable Energy Use

Source: NH Office of Energy and Planning "Energy Facts"

In the residential and commercial sectors, sectors over which Lyme has some direct influence, only wood played a significant role as a renewable source of energy in 2006. Recent advances in technology and lower capital costs of installing solar systems may lead to their increased use in the future.

The town's new highway garage, completed in 2007, was equipped with two wood pellet fired boilers, and in 2009 the Lyme School and Wagner Forest Management were installing new photovoltaic solar systems.

Recommendations:

1) Lyme needs to plan for its future by developing long-range strategies to address energy efficiency and sustainability. The emphasis should be on energy efficiency, minimizing environmental impact, and increasing the use of local and regional renewable energy sources. This includes meeting a state adopted (2007) renewable portfolio standard to get 25% of its electricity portfolio from renewable resources by 2025^{Mark}.

2) Lyme should conduct energy audits of its municipal buildings in order to develop and implement a plan to reduce the town's overall energy use.

3) Land use planning should address the issues of energy efficiency, sustainability, environmental impact, and the use of 'smart growth' principles.

5) Lyme residents should be encouraged to weatherize homes and buildings, use electricity as efficiently as possible, reduce vehicle idling, and decrease use of single-occupancy vehicles through carpooling, ridesharing and community transportation.

6) The Lyme Energy Committee and Town Select Board should stay abreast of local and federal opportunities to promote renewable energy (ie., PACE and RGGI legislation²). These incentive programs have the potential to make renewable energy cost-efficient in the near and long-term future.

Incorporating these suggestions will help the town of Lyme address the issues of energy sustainability and environmental impact in the future. The Lyme Energy Committee will promote adoption of these measures.

Mark US Energy Information Administration

² PACE is Property-Assessed Clean Energy financing, and RGGI is Regional Greenhouse Gas Initiative.

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